



Monthly Drought Update September 13, 2016 San Luis Obispo County

Note: Information provided in this update varies by date.

CURRENT CONDITIONS

U.S. Drought Monitor Status:

The latest U.S. Drought Monitor report released September 1, 2016, indicates the majority of San Luis Obispo County remains at the **D4 – Exceptional Drought intensity rating**. Approximately 59% of the state remains at a level D2 – Severe Drought or worse with 21% of the state in a D4 – Exceptional Drought intensity rating.

San Luis Obispo County Precipitation Totals (in inches):

| Sub-Region | Area / Rain Station | Average Annual Rainfall | 2015-16 Water Year Total Rainfall | 2016-17 Water Year (July 2016-June 2017) | |
|-------------|--|-------------------------------|---|---|-----------------------|
| | | | | Cumulative Total | % of Total Average |
| North Coast | Cambria (ALERT #717) | 22.0 | 17.1 (78%) | 0 | 0% |
| | Whale Rock Reservoir (County Site #166.1) | 16.0 | 14.2 (89%) | 0 | 0% |
| Inland | Paso Robles (County Site #10.0) | 14.1 | 13.3 (94%) | 0 | 0% |
| | NE Atascadero (ALERT #711) | 17.0 | 11.3 (66%) | 0 | 0% |
| | Atascadero MWC (County Site #34.0) | 17.5 | 15.5 (88%) | 0 | 0% |
| | Santa Margarita (ALERT #723) | 24.0 | 16.6 (69%) | 0 | 0% |
| | Salinas Dam (County Site #94) | 20.9 | 17.3 (83%) | 0 | 0% |
| | SLO Reservoir (ALERT #749) | 24.0 | 19.0 (79%) | 0 | 0% |
| South Coast | Lopez Dam (ALERT #737) | 21.0 | 18.0 (86%) | 0 | 0% |
| | Nipomo South (ALERT #730) | 16.0 | 9.6 (60%) | 0 | 0% |
| | Nipomo East (ALERT #728) | 18.0 | 12.3 (68%) | 0 | 0% |
| | | | | | |

Note: This table contains provisional data from automated gauges and has not been verified. All units reported in inches. Report generated at 9:00am on 8/29/2016.

Reservoir Levels (% of capacity):

| Reservoir | % of Capacity | Current Acre Feet Storage |
|------------|---------------|---------------------------|
| Nacimiento | 28% | 104,845 |
| Whale Rock | 33% | 12,972 |
| Lopez | 25% | 12,490 |
| Salinas | 10% | 2,447 |

Source: www.slocountywater.org County of San Luis Obispo

NEAR-TERM OUTLOOK

The U.S. Seasonal Drought Outlook, valid for August 18 – November 30, shows most of the Central Coast still in exceptional drought, which is likely to persist. NOAA's Climate Prediction Center has posted the final El Niño advisory and is now showing a La Niña Watch for development during summer/fall 2016. It appears likely that the Central Coast will remain in "exceptional" drought at least until next winter.

STATE WATER

Status: On December 1, the Department of Water Resources (DWR) announced the initial 2016 State Water Project (SWP) allocation at 10% and indicated that the actual allocation could rise or fall depending on the amount of rain and snow California receives this winter; this allocation has been increased to 60% per the April 21, 2016 Notice to State Water Project Contractors. As of August 29, 2016, San Luis Reservoir was at 15% capacity and 34% of historical average; Lake Shasta Reservoir at 70% capacity and 109% of historical average.

VULNERABLE WATER SYSTEMS

County Service Areas (CSA's)

Santa Margarita (CSA 23)

- Drought response level at ALERT status.
- Primary pumping is from shallow well No. 4; water is also being pumped from deep well No. 3 to reduce needs from well No. 4.
- An ordinance was adopted on August 19, 2014 limiting outdoor watering to two days a week, in accordance with the drought emergency water conservation regulations adopted by the State Water Resources Control Board. An informational mailer was sent to customers and signs in the community have been installed.
- The intertie with Atascadero Mutual Water Company (AMWC) is complete and ready for operation.

Shandon (CSA 16)

- Two wells currently provide all water to the Shandon community and continued to be monitored.
- Connection to the State Water Project has been completed; State Water is anticipated to be delivered to Shandon in September; this was delayed one month due to a last minute operational change requested by the State.
- An ordinance was adopted on August 19, 2014 limiting outdoor watering to two days a week, in accordance with the drought emergency water conservation regulations adopted by the State Water Resources Control Board. An informational mailer was sent to customers and signs in the community have been installed.

Cayucos (CSA 10A)

- Supply is available from Whale Rock and one on-site well. Staff has given a presentation to the Advisory Committee and business groups regarding conserving this supply.
- An ordinance was adopted on August 19, 2014 limiting outdoor watering to two days a week, in accordance with the drought emergency water conservation regulations adopted by the State Water Resources Control Board. An informational mailer was sent to customers and signs in the community have been installed.

Avila Valley (CSA 12)

- Adequate supply is available from Lopez and State water for this year.
- An ordinance was adopted on August 19, 2014 limiting outdoor watering to two days a week, in accordance with the drought emergency water conservation regulations adopted by the State Water Resources Control Board. An informational mailer was sent to customers and signs in the community have been installed.
- The Low Reservoir Response Plan for Zone 3 (the Lopez system) is in effect; municipal deliveries have been cut 10%, however, CSA12 continues to use less than its full allocation and "bank" water for subsequent years.
- Evaluation of emergency drought mitigation options for all of Zone 3 (including CSA12) is underway.

Chorro Valley Institutions (CMC, Animal Services, Sheriff, County Operations, Camp San Luis, Cuesta College, County Office of Education)

- 2016 State water deliveries are at 60% and all sub-contractor's needs are being met.
- The existing distribution system is being evaluated to assure water losses are minimized.
- CMC has completed their water treatment plant upgrade project.
- Discussions with City of San Luis Obispo to exchange Nacimiento for Whale Rock are being initiated if State Water is insufficient in 2018.

San Luis Obispo County Flood Control and Water Conservation District Systems

Zone 3 – Lopez Water Project (CSA12, Pismo Beach, Grover Beach, Arroyo Grande, Oceano)

- The Low Reservoir Response Plan for Zone 3 is in effect; agencies were provided their 3 year water supply per the Governor's May 19, 2016 drought executive order; municipal deliveries have been reduced.
- Downstream environmental and agricultural releases have been cut 9.5%.
- District staff in conjunction with the Zone 3 Technical Advisory Committee is evaluating options to increase District State Water deliveries to preserve Lopez Reservoir's water levels.

Salinas Water Project – Salinas Reservoir (Santa Margarita Lake)

- The reservoir is at 10% capacity; City of San Luis Obispo is reliant on the Nacimiento and Whale Rock Reservoirs.

Nacimiento Water Project

- The Project is operating at full annual allocation levels.
- The District Board of Supervisors approved distribution of all the NWP reserve water to the 5 original participants and 2 additional participants on April 19, 2016. Development of procedures to market surplus water to buyers is underway.
- Water quality resulting from post Chimney Fire are being assessed and discussed with participating agencies

Non-County Operated

Cambria Community Services District

- Emergency San Simeon Creek Brackish Water Supply Project went online on January 20, 2015. The district is now seeking a permit to operate it permanently.

San Simeon Community Services District

- The CSD has a new well head salinity project to increase supplies in the current prop 84 grant round. DWR released draft funding recommendations and the San Luis Obispo IRWM region is recommended for 75% of grant request.

Heritage Ranch Community Services District

- The Nacimiento River is the only available water source for the community of Heritage Ranch. An emergency inter-tie, funded with emergency grant funds, from the Nacimiento line is complete. Construction of the emergency inter-tie pipeline from Heritage Ranch is complete

Rural Paso Robles residents

- Continuing to identify water-trucking options and examine outreach efforts. See County Drought Conditions and Water Conservation Website for drought relief update information.

IMPACTS

Agricultural Impacts:

Vegetable and berry growers in the southern part of the county report they are cautiously monitoring irrigation cycles, as they do not know how long into the fall and winter months they will be able to draw ground water. Acreage of crops that are routinely planted in late summer and fall to meet higher consumer demand for fresh produce during the year-end holiday season may be reduced or not planted at all.

The intensity and duration of fires currently burning throughout California can be attributed to ongoing dry, cumulative drought conditions. Locally, the Chimney Fire continues to burn through rangeland and oak woodland areas that received favorable moisture during the 2015-2016 rain season, contributing to higher

fuel loading. As reported in the Forage Production Report San Luis Obispo County 2001-2016 (<http://cesanluisobispo.ucanr.edu/files/243630.pdf>), rangeland located within the coastal zone where the Chimney Fire is burning, produced above average amounts of usable forage plants. While this should have the positive impact of increasing the seed bank of important grazing plants such as grasses and forbes for livestock grazing for the immediate future, it also creates a high fire potential.

Looking into the future, the timing and intensity (amount of rainfall during storm events) of rainfall this coming rain season (October through May) will influence potential erosion in burned areas and favorable seed germination. Frequent storms bringing light rainfall amounts early in the growing season are ideal conditions for good rangeland seed germination.

It is important to note that the number of cattle normally found grazing on the local rangeland areas throughout San Luis Obispo County has been reduced dramatically over the past 3 years (as much as 50% reduction in 2015 compared to 2014) due to the ongoing drought. This lack of grazing animals has contributed to the buildup of fuel (dried grasses and forbes) and increased fire danger.

Update on Producer Assistance Programs- USDA Farm Service Agency

For information about current drought assistance programs, including programs that could pertain to damage caused by the Chimney Fire, contact the USDA Farm Service Agency:

Templeton: 805-434- 0398 Ext 2.
Santa Maria: 805-928-9269

Growers are also encouraged to contact the San Luis Obispo County Department of Agriculture/Weights and Measures to report fire damage to agricultural crops, rangeland, livestock and infrastructure such as fences, buildings or wells:

Templeton Office: 805-434-4081, Toll Free: 855-289-6103

Fire Danger:

Fire Danger

Since the beginning of the year, firefighters from CAL FIRE have responded to over 4,270 wildfires across the state, burning 183,025 acres. These stats do not include fires in federal jurisdiction which have been numerous. The drought across the state is about to enter its 5th year and the effect on vegetation has been severe. The past winter did result in a few heavy rains and the grass crop is heavier in many areas compared to the last 3 years. In 2016, abundant grass and accumulated persistent dead brush will be the primary fuels that could contribute to larger, more frequent fires compared to the previous 3 years. Above normal large fire potential is expected from August through October 2016.

Live Fuel Moisture (LFM)

(LFM is the moisture content of live vegetation expressed as a percentage of the oven-dry weight.)

LFM values in the County peaked in March and continue the normal seasonal decline with most values below historical averages and below the critical level of 60. Due to the precipitation received this spring and mostly warm sunny weather, there is an abundant grass crop in most areas which will continue to provide the fuel bed for more frequent and faster spreading fires than in the previous 3 years.

Dead Fuel Moisture

(The moisture content of dead organic fuels is another important component of the relative fire danger. As with LFM above, dead fuel moisture levels are a good indicator of how likely fuels are to ignite and how intensely they will burn. 100-hr fuel refers to vegetation between 1 and 3 inches in diameter and 1000-hr fuel is 3-6 inches. When the fuel moisture content is low, fires start easily and will spread rapidly.)

Many fuel beds in the County, particularly coastal sage scrub, have seen a dramatic increase in the percentage of dead fuel as a result of the prolonged drought. In many areas, the volume of dead vegetation exceeds the volume of live vegetation.

Energy Release Component (ERC)

(ERC is an index related to how hot a fire could burn. It is directly related to the 24-hour, potential worst case, total available energy (BTUs) at the head of a fire. The ERC can serve as a good characterization of fire season as it tracks seasonal fire danger trends well. ERC has low variability, and is the best fire danger component for indicating the effects of intermediate to long-term drying on fire behavior.)

Warm, dry, windy weather has resulted in ERC values that remain above average. This combination of weather and fuels during the heat wave was responsible for the significant fire activity.

Forest and Range Impacts

Widespread tree mortality is plainly evident throughout the county. All tree species have been adversely affected by the drought. Thousands of coast live oaks of all sizes in all areas and at all elevations have died. The eucalyptus stands on the Nipomo mesa are showing a sharp increase in the number of dead trees and also in the number of live trees with dead crowns which substantially increases the amount of dead fuel loading available for fire.

The area most severely impacted is the Cambria Monterey Pine Forest (CMPF). Already one of the most endangered native forests in the world, the CMPF has been further devastated by the drought. The poor condition of the CMPF resulting from the decades-long problems of senescence, over-crowding, fire exclusion, development, pitch canker, bark beetles, and many other fungal and parasitic pathogens has been severely amplified by the drought. These cumulative impacts have created the current situation where approximately 40-50% of the overstory trees are dead or dying. In certain areas, mortality exceeds 90%. In addition to the major impacts to forest health, the resulting fire hazard has increased to the point where catastrophic stand-replacing fire is very likely. Hundreds of large dead hazard trees are poised to fall on homes, vehicles, and vital infrastructure.

The SLO Fire Safe Council (FSC) is beginning implementation of a \$498,000 grant from the CAL FIRE Greenhouse Gas Reduction Fund (GGRF) to help improve forest health in Cambria. Another \$275,000 grant has been awarded through the Western Forestry Leadership Coalition (WFLC). The focus of this grant will be to augment and improve fuel breaks on the east side of Cambria. Timber operations are being planned under a Timber Harvesting Plan (THP) to include sanitation/salvage logging and forest thinning.

CAL FIRE created a web-based map viewer to allow Californians to participate in understanding and identifying the areas most impacted with tree mortality as a threat to life and property. The viewer can be accessed at the following link: <http://frap.fire.ca.gov/projects/DroughtViewer>.

Emergency Permits

County Planning approved an emergency hazard tree removal permit that allows Cambria residents to remove dead hazard trees with a no-cost permit. Residents received a letter from the Planning Director authorizing them to remove hazard trees under certain conditions which include contacting the Fire Department and having an inspection done and their trees marked by CAL FIRE.

Forest Assessments

Forest assessments under the direction of Cal Poly forestry faculty have been initiated to quantify the extent of this issue and the results will be made known as soon as they become available. This research work will continue and will provide the foundation for all the work that will occur under the grants described above.

Economic:

In an effort to coordinate local and state response to drought impacts the following surveys are being utilized by the County:

Drought Business Impact Survey

The Labor and Workforce Development Agency (LWDA) and the Employment Development Department (EDD) developed a streamlined survey to report drought-related job impacts. Collecting "real-time" drought-related information is essential for the LWDA and the Governor's Drought Relief Task Force to identify the drought's impact on California's industries, employers, and workers. The survey, which collects information on drought impacts for employers allows the affected employer to report directly to the State, thereby, providing a level of confidentiality that business and industry need. A link to the new survey is available on the San Luis Obispo Workforce Development Board's website: www.SLOworkforce.com.

Domestic Water Issues-Intake Form

The Governor's Drought Task Force created an online intake form for local, state, or tribal and federal agencies to document domestic water issues. The information is intended to inform and coordinate state response and mitigate drought impacts. Both agencies and individuals can complete the reporting form. Individuals with domestic water issues are encouraged to contact County Environmental Health at (805) 781-5544 or visit the state online reporting website at <https://mydrywatersupply.water.ca.gov/report/>.

STATE & FEDERAL KEY ACTION ITEMS FROM LAST MONTH

Governor Brown Declares State Of Emergency In San Luis Obispo County Due To Chimney Fire:

On August 15 Governor Edmund G. Brown Jr. issued an emergency proclamation for San Luis Obispo County due to the effects of the Chimney Fire, which has burned thousands of acres, damaged critical infrastructure, destroyed homes and caused the evacuation of residents.

COUNTY DROUGHT TASK FORCE KEY ACTION ITEMS FROM LAST MONTH

County Office of Emergency Services:

San Luis Obispo County OES continues to coordinate with the Governor's Office of Emergency Services (Cal OES) to provide updates on the drought situation, respond to specific information requests to Cal OES, and coordinate local emergency needs. County OES continues to participate in the statewide drought conference calls hosted by Cal OES.

Emergency Actions:

No new emergency actions have been taken specific to the drought in this reporting period.

County Facilities Usage & Conservation Actions:

The county has taken the following actions:

- Water Conservation: Water usage status updates for the users in the Utility Manager system and the County Operations Center show a 34% reduction countywide in water usage in May 2016 from May 2013.
- Fixture Replacement and Leak Repair: Staff continues to identify and repair leaks to minimize water loss.
- County Airport: As previously reported, County Airport fire hydrants must be flushed periodically to maintain safe water for drinking due to chlorine levels. The Airport is making the water from hydrant flushing available for agricultural operations, construction, or other purposes. Please contact the Airport at (805) 781-5205 if interested in using this free water.

Drought Contingency Planning:

The Public Health Department, the Public Works Department, and CAL FIRE/County Fire continue to develop plans to ensure there is adequate supply of water for firefighting and domestic water use in the event that a community does not have enough water.

Water Purveyors GIS

Water purveyors GIS data contains the new vulnerability level field that was determined after assessing the results of a one-time voluntary 2014 survey questionnaire that was sent to both large and small water purveyors. The mapping of this data has been categorized by the assessed vulnerability levels which are Watch (green), Vulnerable (orange), Critical (red) and Pending Survey Results (blue) and is available for CalFire in a web map viewer. The link is on the home page under the County Drought Task Force heading of the SLO Cal Fire website <http://www.calfireslo.org/>

Dry Well Replacements

Environmental Health has been tracking dry well replacement applications since 2013 and the mapping of the sites is updated on a weekly basis. As of Monday, August 29, there have been 102 domestic dry well replacements for 2016.

County Public Outreach Actions:

Information regarding current and upcoming drought relief programs for rural homeowners has been placed on the County Drought Conditions and Water Conservation webpage. Rural Development, an agency of the United States Department of Agriculture (USDA), delivers a number of programs to help improve the quality of life in rural communities throughout the nation. These programs may also help rural communities, businesses and individuals impacted by California's ongoing drought conditions. For additional resources and information on applying for any of these programs, please visit <http://www.rurdev.usda.gov/ca> or the County Drought Conditions and Water Conservation webpage at http://www.slocounty.ca.gov/admin/Drought_Update.htm.

In an effort to raise awareness about water supply issues the County continues to examine multiple channels of communication for water conservation outreach efforts. Check out our water-saving tips, shareable water saving images, and customized Tweets and Facebook posts just for you to share and help us continue the SLO County culture of conservation at the following link: http://www.slocounty.ca.gov/admin/Drought_Update/water-conservation.htm

To report drought-related concerns or for water conservations questions, call the County Water Conservation and Drought Hotline at (805) 781-4466.

DROUGHT RELATED WEBSITES FOR MORE INFORMATION

County of San Luis Obispo Drought Conditions and Water Conservation

(http://www.slocounty.ca.gov/admin/Drought_Update.htm)

State's Water Conservation Campaign; Save our Water

(www.saveourh2o.org)

California's Drought Information Clearinghouse; Drought.CA.Gov

(<http://ca.gov/drought/>)

California Department of Food and Agriculture; Drought information

(www.cdffa.ca.gov/drought/)

California Department of Water Resources; Current Water Conditions

(www.water.ca.gov/waterconditions/drought/)

California State Water Resources Control Board; Water Rights, Drought Info and Actions

(www.swrcb.ca.gov/waterrights/water_issues/programs/drought/index.shtml)

California Department of Public Health; Drinking Water CDPH Drinking Water Program

(www.cdph.ca.gov/programs/pages/dwp.aspx)

USDA Disaster and Drought Assistance Information; USDA Programs

(http://www.usda.gov/wps/portal/usda/usdahome?navid=DISASTER_ASSISTANCE)

UC Cooperative Extension Drought Information Resources; Drought Information Resources

(http://cesanluisobispo.ucanr.edu/Drought_Information/)

